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U. S. DEPARTMENT OF AGRICULTURE  
AND STATE AGRICULTURAL COLLEGES  
COOPERATING



STATES RELATIONS SERVICE  
OFFICE OF EXTENSION WORK NORTH AND WEST  
WASHINGTON, D. C.

## THIS LOOKS GOOD

### SEED INJURY DEMONSTRATIONS IN WHATCOM COUNTY, WASHINGTON

Many county agents have felt that more or less injury occurs when seeds are dipped with such solutions as formaldehyde in smut control work. In some cases germination is so weakened as to offset the value of the treatment. In some parts of the country these results have tended to discredit the whole subject of seed treatment.

County Agent H. B. Carroll in Whatcom County, Washington, this year arranged a series of demonstrations to show specifically that this treatment could be used with safety if the seeds were dipped in limewater immediately following the formaldehyde treatment. Demonstrations were conducted on ten farms under definite greenhouse control conditions, as well as observation demonstrations under field conditions. The results of this demonstration work is so apparent and so convincing that Mr. Carroll has distributed the results in a follow-up campaign by means of illustrations and tabular matter. Below is given a table showing the results of these demonstrations which has been sent to every farmer in his county:

County Agent Section  
10-29-'21  
No. 74 - L

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# SEED INJURY DEMONSTRATIONS, WHATCOM COUNTY, WASHINGTON, 1921

## Greenhouse Germination Tests - Oats, Barley and Wheat.

Name of Cooperator	Community	Variety	Per cent germination untreated seed	Per cent germination for formaldehyde treatment	Percent loss due to formaldehyde	Per cent germination formaldehyde and lime water	Per cent gain by use of lime water	Remarks
W.L. Wilder	Pleasant Valley	Swedish Select Oats	88	77.5	10.5	97.5	20	Results very noticeable in field
Geo. Knittle	Greenwood	Swedish Select Oats	83	78	5	76.5	0	Whole field looked poorly. Soil infection present.
Jackman Bros. Delta	Delta	20th century	98	81	17	94.5	13.5	Results very noticeable in field
J.S. Johnson	Acme	Swedish Select	94.5	91.5	3	96	4.5	Field results not clearly defined, but difference in root system plain.
S.E. McCaw	Rowe	Shield Oats	91	74	17	100	26	Field results very marked in every respect.
J.P. Lawrence	Forest Grove	Swedish Select	95	74.5	20.5	94	20	Oats treated April 8, not seeded till Apr. 16. Field results most noticeable, also root appearance.
Graham Bros.	Woodlyn	White Bonanza	84.5	80.5	4	88	7.5	Field not inspected, tags lost and grain not planted.
Niels Peter-son	Clipper	Swedish Select	74	71	3	71	0	Although no difference in greenhouse tests, the experiment was clearly defined in the field.
S.E. McCaw	Rowe	Hendshen Barley	78	66	12	84.5	18.5	Field results clear- more vigorous plants and roots.
S.E. McCaw	Rowe	Marquis wheat	98.5	54.5	35	100	45.5	Field showed clearly the value of lime water dip.

